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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/648,964	08/27/2003	Selvarajan Murugan	TI-36077(032350.B515)	6223

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EXAMINER

ORTIZ, ANGELA Y

ART UNIT PAPER NUMBER

1732

DATE MAILED: 03/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/648,964

Applicant(s)

MURUGAN, SELVARAJAN

Examiner

Angela Ortiz

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 January 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 1-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of claims 11-20 in the reply filed on January 4, 2006 is acknowledged.

Claims 1-10 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on January 4, 2006.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 19 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "1kk mold cycles" is not understood and is indefinite.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 11-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freyman et al., USP 5,635,671 in view of Woosley et al., USP 5,656,549.

The cited primary reference substantially teaches the basic claimed method of removing excess resin from a mold gate runner wherein the height of the runner is tapered and allows ease of removal of resin from the degating region. The method further comprises providing a strip 900 of substrates between upper and lower mold sections of an apparatus, with a plurality of resin pots formed in the lower mold section for distributing the encapsulating resin. A mold runner 903 is provided with respect to a degating region 902. The reference further teaches forming the mold runner such that the mold runner is centrally positioned within the degating region, and has a height that necks down from a first height to a second height above the substrate and degating region. Resin flows through the runner to the substrate, and since the edges of the runner are within the degating region, excess encapsulant falls within the degating area and is easily removed without damage to the substrate or mold. See col. 11, lines 53-68; col. 12, lines 1-25.

The cited primary reference does not teach a bridge insert per se.

The added secondary reference teaches as conventional the feature of a bridge insert for preventing molding resin from clogging the apparatus, as well as flash formation. The method comprises providing a mold press 10 that includes a top and bottom mold plate 11,23, and a cavity 12 provided with a movable block such that a gap surrounds the block. A device is positioned within the cavity, on top of the movable block, and an insert bridge 22 is positioned over the gap, between the mold runner and the mold cavity. The insert bridge 22 is formed on the mold and prevents encapsulating resin from clogging the gap and prevents flash formation. See col. 2, lines 28-68; col. 3, lines 1-30; col. 4, lines 27-37.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include an insert bridge on the mold runner as shown in the added reference, when forming the mold runner with an adjusted height as shown in the primary reference, for the benefit of preventing flash formation on the runner.

With respect to claims 12-14, note that the primary reference, USP 5,635,671, teaches a plurality of resin pots in a transfer molding apparatus, see figures 7A and 7B, as well as a mold runner that tapers, see figure 9; also see col. 10 lines 47-58; col. 1, line 60 to col. 2, line 25; col. 12, lines 1-10.

With respect to claims 15-19, note that the secondary reference, USP 5,656,549, teaches that the bridge insert is chemically and mechanically stable during molding, and can comprise any conventional appropriate film – see col. 3, lines 1-28 – and it would have been obvious to include any conventional material or composite for achieving an insert that is chemically and mechanically stable during molding as desired.

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With respect to claim 20, see col. 3, lines 13-15 and col. 4, lines 32-33.

Conclusion


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. USP's 5542171; 5723156; 5800747; 5846477; 5961912; 6096250; 6309914; 6372553; 6432751; 6545368; 2003/0062605 A1.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela Ortiz whose telephone number is 571-272-1206. The examiner can normally be reached on Monday-Thursday 9:00-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianni can be reached on 571-272-1196. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Angela Ortiz
Primary Examiner
Art Unit 1732

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